

said liquid is less than 0.5% molar weight of said liquid" while claim 42 recites the limitation that "the proportion of said additive in said liquid is less than 0.1% molar weight of said liquid." Applicants believe that claims 41 and 42 are of different scope and thus are in proper form.

Claim Rejections

In paragraph five of the Office Action, claims 27-28, 30-39, 41-43, 47-49, 51-57 and 60 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ilardi et al. (U.S. Patent No. 5,466,389) in view of Kern (Hand Book of Semiconductor wafer cleaning technology) and further in view of Sehested et al. (J.Phys.Chem.). In paragraph six of the Office Action, claims 29, 44-46, 50 and 58-59 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ilardi et al. (U.S. Patent No. 5,466,389) in view of Kern (Hand Book of Semiconductor wafer cleaning technology) and Sehested et al. (J.Phys.Chem.) and further in view of Stanford et al. (U.S. Patent No. 5,244,000).

The Office Action states that the Ilardi reference teaches an improved composition for cleaning substrates, the composition comprising nonionic surfactants, an additive such as acetic acid and an oxidizing agent such as hydrogen peroxide. The Office Action further states that the Ilardi reference teaches the use of hydrogen peroxide to remove contaminants but fail to teach ozone to remove contaminants from a substrate. The Office Action concludes that it would have been obvious to one of ordinary skill in the art to replace hydrogen peroxide with ozone because both are functionally equivalent as taught by the Kern reference.

Contrary to the Office Action's assertions, Ilardi does not teach an improved composition for cleaning substrates using an oxidizing agent, such as hydrogen peroxide. Quite the contrary, Ilardi teaches that the object of his invention is "to provide such an alkaline cleaner solution that does not require the presence of hydrogen peroxide or other oxidizing agent" Col. 2, lines 12-13. It is improper to combine the Ilardi reference with Kern where the Ilardi reference teaches away from their combination. See M.P.E.P. 2146, *In re Grasselli*, 713 F.2d 731, 743, 218 U.S.P.Q 769, 779 (Fed. Cir. 1983). Specifically, the Ilardi reference teaches away from using hydrogen peroxide or other oxidizing agents for cleaning. Therefore, looking to other references (such as Kern) to teach the substitution of ozone for hydrogen peroxide is improper.

Second, the Ilardi reference actually supports Applicants' argument that the substitution of ozone, in the present context, is not obvious. Ilardi recites, in painstaking detail, the reasons to remove hydrogen peroxide and other oxidizing agents. Those reasons include: (1) its inherent instability; (2) its low tolerance for metal contamination; (3) its requirement to be replenished; (4) its difficulties in maintaining stable cleaning properties; and (5) its undesirable safety and environmental concerns. Faced with this problem, Ilardi attempts to remove hydrogen peroxide and other oxidizing agents while cleaning – in effect avoiding the problem entirely. If it were so obvious to substitute ozone for hydrogen peroxide, as the Office Action contends, why didn't Ilardi teach (or even hint) to do so? In actuality, the substitution ozone for hydrogen peroxide in this type of cleaning context is not obvious, as evidenced by the steps taken Ilardi to avoid the use of hydrogen peroxide or oxidizing agents altogether.

Third, the proposed modification renders the Ilardi reference unsatisfactory for its intended purpose. As stated in its background, Ilardi seeks to remove hydrogen peroxide or other oxidizing agents in the cleaning composition. Yet, the Office Action seeks to substitute ozone for hydrogen peroxide. This is directly contrary to the teaching in Ilardi, which seeks to remove hydrogen peroxide. If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984). This is exactly what the Office Action proposes when modifying the Ilardi reference. Thus, Applicants believe that the combination of references cited in the Office Action do not render the claims obvious.

CONCLUSION

If for any reason, the application is not considered to be in condition for allowance on the next Office Action and an interview would be helpful to resolve any remaining issues, the Examiner is requested to contact the undersigned attorney at (312) 913-0001.

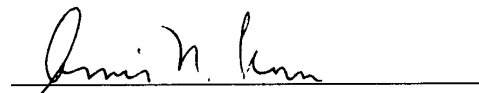
Respectfully submitted,

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Dated:

4/8/02

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